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Hyun-Il Kwon

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EXAMINER

WONG, XAVIER S

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/645,571	Applicant(s) KWON ET AL.	
	Examiner Xavier Wong	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26th July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-9 is/are rejected.
- 7) ☒ Claim(s) 5 & 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicant's request for reconsideration of the finality of the rejection on 19th February 2008 of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Claims **1-10** are currently pending based on reply filed on 26th July 2007.

This is a Final action.

Allowable Subject Matter

The prior art of record does not clearly show, for claims **5** and **10**, "a feedback value is input to a first number of shift registers necessary for generating a synchronization code used in the first system mode (e.g. sync mode) or to a second number of shift registers necessary for generating a synchronization code used in the second system mode (e.g. async mode)" as described in claims **5** and **10**. The best prior art **Lipponen et al (US 2002/0031169 A1)** disclose a single feedback input to a register (fig. 2C) generating one long set of code through XOR logic (para. 0057-59). Therefore, claims **5** and **10** are considered non-obvious.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims **1** and **6** are rejected under 35 U.S.C. 102(b) as being anticipated by **Ghosh** et al (US 6018667).

Claims **1** and **6**: **Ghosh** et al disclose an apparatus for synchronization acquisition communicating with any one of a first node B in a first system mode operating in a synchronous scheme and a second node B in a second system mode operating in an asynchronous scheme in a mobile communication system (fig. 1), comprising:

a controller for determining a system mode of a current node B to which the UE belongs between the first system mode (synchronized) of the first node B and the second system mode (unsynchronized) of the second node B (col. 3 lines 23-33, col. 6 lines 63-66), and generating a system mode select signal in order to select the determined system mode (col. 7 lines 60-64: status/GPS supply 211 gives signal regarding system status/mode); and a code generator for generating a synchronization code used in the determined system mode in response to the system mode select signal (col. 7 lines 66-67, col. 8 lines 1-9 & 16-20: GIC1 sync code & GIC2 async code). See also column 10 lines 41-58.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims **2, 4, 7** and **9** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ghosh** et al (US 6018667) in view of **Lee** et al (US 2001/0006515 A1).

Claims **2, 4, 7** and **9**, applied to claims **1** and **6**: **Ghosh** et al disclosed the claimed invention, yet, may not have *specifically* mentioned:

- i. determining step designating a system mode of a Node B to which the UE belongs prior to the UE powering-off as the determined system mode; and,
- ii. determining step designating a system mode having a first priority among system modes previously stored in the UE as the determined mode.

Lee et al disclose the mobile station (controlled by the controller; [0051]: 14-17) records in its memory that it is registered (pre-determined) in a sync system mode (prior to) entering idle sleep / powered-off condition ([0064]: 1-3); therefore, the controller has the ability to designate (remember) a system mode of a previous Node B to which the mobile station belong to prior to powering off. Also, since the sync mode is (previously) registered / stored as mentioned above, the sync mode has a first priority among sync and async modes as the determined system mode. It would have been obvious to one of ordinary skill in the art at the time the invention was created to understand storing a previous mode before powering-off and having a mode as a first priority (e.g. over-riding other modes) taught by **Lee** et al to be implemented in the controller of **Ghosh** et al to guarantee a certain service to the mobile station.

Claims **2** and **7** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ghosh** et al (US 6018667) in view of **Shoobridge** (US 2002/0068618 A1).

Claims **2** and **7**, applied to claims **1** and **6**: **Ghosh** et al disclose the claimed invention, yet, do not specifically disclose determining step designating a system mode of a Node B to which the UE belongs prior to the UE powering-off as the determined system mode. **Shoobridge** teaches the *concept* of a mobile unit wakes up to run in a mode that has been already configured in its memory (fig. 9 steps 530-570; claim 5); which means some time prior to powering off the mobile unit, its previous configuration mode was stored in the memory for re-use after it wakes up. It would have been obvious to one of ordinary skill in the art at the time the invention was created to program the synchronization acquisition apparatus of **Ghosh** et al to function using a previously stored mode as taught by **Shoobridge** to allow quick reestablishment of a communication session while conserving power during idling periods ([0007]).

Claims **4** and **9** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ghosh** et al (US 6018667) in view of **Neumann** et al (US 2002/0173338 A1).

Claims **4** and **9**, applied to claims **1** and **6**: **Ghosh** et al disclosed the claimed invention, yet, may not have *specifically* mentioned:

determining step designating a system mode having a first priority among system modes previously stored in the UE as the determined mode.

Neumann et al disclose a *factory pre-set* selection of an operation mode done by a GSM processor (controller) ([0041]; [0045]), such reads on as designating a *first priority*

among system modes previously stored in the terminal as the determined system mode since it is pre-selected and it overrides any other modes the terminal might contain. It would have been obvious to one of ordinary skill in the art at the time the invention was created to apply the concept of first priority or pre-selection of **Neumann et al** and implement such mode selection process to the synchronous acquisition process of **Ghosh et al** for consistent operation of the terminal.

Claims **3** and **8** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ghosh et al** (US 6018667) in view of **Suzuki et al** (US 2002/0032692 A1).

Claims **3** and **8**, applied to claims **1** and **5**: **Ghosh et al** disclose the claimed invention, yet, may not have *specifically* disclosed a service provider sets the system mode. **Suzuki et al** mention an application service provider that allows users to set current modes to be synchronous or asynchronous system modes ([0223-225] & [0261]). It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement a controller that determines a system mode set by a service provider as taught by **Suzuki et al**, in the synchronization acquisition apparatus of **Ghosh et al**, in order to better manage resource priorities in a communication / workflow system.

Response to Arguments

1. Applicant's arguments with respect to claims **1** and **6** have been considered but are moot in view of the new ground(s) of rejection. Applicant is also reminded that a preamble is generally not accorded any patentable weight where it merely recites the

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purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Conclusion

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
3. **Lipponen** et al (US 2002/0031169 A1) disclose code generator for updating linear feedback shift register or LFSR
4. **Park** et al (US 6603735 B1) disclose PN identifying device in a CDMA receiver
5. **Park** et al (US 7133384 B2) disclose dual-mode mobile terminal with handoff ability in sync and async modes
6. **Hashem** et al (US 2002/0122403 A1) disclose SCDMA and ACDMA
7. **Tak** et al (US 6567460 B1) disclose PN (I,Q) sequence generators
8. **Park** et al (US 7151756 B1) disclose mobile station reporting intensity measurement received from sync and async base stations
9. **Hwang** et al (US 7184419 B2) disclose uplink handover controlling establishment of async to sync and sync to async connections of a mobile node
10. **Kasami** et al (US 2002/0181492 A1) disclose mobile nodes that determines whether a traffic of an access point is sync or async

11. **Niou** et al (US 6704322 B1) disclose concatenating async P-7 code and sync P-3 code to form a spreading code

12. Applicant's amendment (as of reply filed 26th July 2007) necessitated the new ground(s) of rejection presented in this Office action. Accordingly, this action is made **Final**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xavier Wong whose telephone number is (571)270-1780. The examiner can normally be reached on Monday through Friday 8:30 am - 6:00 pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Seema S. Rao/
Supervisory Patent Examiner, Art
Unit 2616

Xavier Szewai Wong
X.S.W / x.s.w
7th July 2008